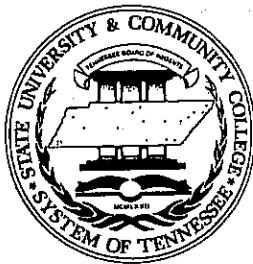


**CONTRACT #5**  
**RFS # 332.77-06.172**

**Tennessee State**  
**University**

**VENDOR:**  
**Fairborn Observatory**



## Tennessee Board of Regents

1415 Murfreesboro Road - Suite 350 - Nashville, Tennessee 37217-2833  
(615) 366-4400 FAX (615) 366-4464

September 28, 2005

RECEIVED

SEP 29 2005

FISCAL REVIEW

Ms. Leni S. Chick  
Fiscal Analyst  
Rachel Jackson Building, 8<sup>th</sup> Floor  
Nashville, TN 37243

Dear Ms. Chick:

Enclosed please find an agreement between Tennessee State University and Fairborn Observatory which provides maintenance services to house, operate, maintain and repair robotic telescopes and associated instrumentation.

I realize that contracts are to be submitted to you 60 days prior to the proposed implementation date. The contract was received and finalized at the TBR central office to be approved today, September 28, 2005. **Please contact me or Angela Gregory regarding the date this will go before the Fiscal Review Committee and I will inform the representatives to insure they are present for the meeting in which the contract will be discussed.** If you have any questions, please do not hesitate to contact me at 366-3920 or Ms. Gregory at 366-4436.

Information regarding the contract may be sent to my attention at the Tennessee Board of Regents, 1415 Murfreesboro Road, Suite 340, Nashville, Tennessee 37217.

Sincerely,

Elizabeth Holton McClaran  
Administrative Assistant/Coordinator

Cc: Charles Manning  
Bob Adams  
Angela Gregory

Austin Peay State University • East Tennessee State University • Middle Tennessee State University • Tennessee State University  
Tennessee Technological University • University of Memphis • Chattanooga State Technical Community College  
Cleveland State Community College • Columbia State Community College • Dyersburg State Community College  
Jackson State Community College • Motlow State Community College • Pellissippi State Technical Community College  
Roane State Community College • Southwest Tennessee Community College • Volunteer State Community College  
Walters State Community College • Nashville State Technical Community College • Northeast State Technical Community College  
The Tennessee Technology Centers

## TENNESSEE STATE UNIVERSITY

JUSTIFICATION FOR NON-COMPETITIVE PURCHASES AND  
CONTRACTS FOR \$250,000 AND GREATER1. Description of service to be acquired:

This is a **proprietary maintenance service** to house, operate, maintain, repair, and upgrade our nine 0.25 meter to 2.0 meter robotic telescopes and associated instrumentation to conduct state-of-the-art astronomical observations at a prime, secure, remote observing location in the desert southwest.

2. Explanation of the need for or requirement placed on the procuring agency to acquire the service:

These telescopes provide the primary scientific data required by the astrophysics group at the Tennessee State University Center of Excellence in Information Systems. The data are used by TSU researchers and students for many projects including the study of brightness changes in Sun-like stars with implications for global climate change, the search for planets around other stars, and the study of magnetic activity in a variety of stars.

3. Name and address of the proposed contractor's principal owner(s):

Our contractor is Fairborn Observatory, a non-profit Educational Corporation located at 1327 Duquesne Road, Patagonia, Arizona 85624. Mailing address is HCR2 Box 256, Patagonia, Arizona 85624.

4. Evidence that the proposed contractor has experience in providing the same or similar service and evidence that the contractor has provided the same or similar service:

Fairborn Observatory has been providing this service to TSU for 15 years. In that time, the number of telescopes operated by TSU astronomers has grown from one to nine; most of the new telescopes and instruments were designed and built by Fairborn personnel. The telescopes operate every clear night and provide the most precise data ever obtained, in quantities never before achievable and at a tiny fraction of the cost of previous manual observing. As a result of the support from Fairborn Observatory, TSU has become the world's leader in astronomical research with robotic telescopes and has achieved capabilities unmatched by any other institution in the world.

5. Explanation of whether the service was ever bought by the procuring institution (Tennessee State University) in the past, and, if so, what method was used to acquire it and who was the contractor:

As explained in item 4, Fairborn Observatory has been providing this service to TSU for 15 years. Prior to the TSU/Fairborn partnership, such capability to make automated astronomical observations did not exist anywhere but has been DEVELOPED through this collaboration. Today, there remains no other organization that can provide this leading-edge capability to TSU.

6. Description of Tennessee State University's efforts to use existing institutional employees and resources or, in the alternative, to identify reasonable, competitive, procurement alternatives (rather than use non-competitive negotiation):

Several years ago, TSU attempted to have a new robotic telescope built by a commercial company, but the company failed and was not able to produce the automated telescope. Other companies have sought to commercialize the type of product and service provided by Fairborn Observatory but none have succeeded. TSU personnel have indeed produced a new automated telescope themselves, namely the new 2.0 meter automatic spectroscopic telescope, but it must still reside at and be maintained by Fairborn personnel. TSU has no institutional employees or resources in the desert southwest to provide this service where these telescopes must be located to take advantage of the clear, dark skies.

7. Justification of why the state institution should acquire the service through non-competitive negotiation:

The robotic telescopes operated by TSU astronomers are unique, state-of-the art instruments designed and built by Fairborn Observatory. Such instruments are not available commercially from any other source in the world nor do instruments with similar capability exist anywhere but Fairborn. Only Fairborn Observatory personnel, who developed these telescopes in collaboration with TSU, have the capability to keep these instruments operating on the cutting edge required by our research.

APPROVAL: \_\_\_\_\_

  
Melvin N. Johnson, President

9-8-05

Date

APPROVAL: \_\_\_\_\_

  
Chancellor

9/28/05  
Date

REVIEW BY FISCAL REVIEW COMMITTEE:

\_\_\_\_\_  
Chairman

\_\_\_\_\_  
Date

AGREEMENT  
BETWEEN  
TENNESSEE STATE UNIVERSITY  
AND  
**FAIRBORN OBSERVATORY**

332.77-064172

THIS AGREEMENT, by and between TENNESSEE STATE UNIVERSITY, a Tennessee Board of Regents institution, located at 3500 John A. Merritt Boulevard, Nashville, Tennessee 37209-1561, hereinafter referred to as the "UNIVERSITY", and FAIRBORN OBSERVATORY, having its principle office at HCR2 BOX 265, Patagonia, AZ, 85624 hereinafter referred to as the "CONTRACTOR".

**WITNESSETH:** In consideration of the mutual promises herein contained, the parties have agreed and do hereby enter into this Agreement according to the provisions set out herein:

A. The Contractor agrees to perform the following services:

*Oversee the operation , data collection, and maintenance of the optical, mechanical, electrical, and computer systems of the TSU telescopes at Fairborn Observatory. This is a proprietary maintainance agreement.*

B. The University agrees to perform the following services: *N/A*

C. The University agrees to compensate the Contractor as follows:

1. Rate of Compensation: *(See Appendix A)*
2. Timetable for Payment: *Upon receipt of invoice*
3. Payment(s) to the Contractor shall be made according to the schedule set out above, but only after receipt of invoices for services performed. The final payment shall be made only after the Contractor has completely performed his duties under this Agreement.
4. In no event shall the liability of the University under this contract exceed \$ 585,000.

D. The University agrees to compensate the Contractor for travel, meals and lodging which shall be in the amount of actual cost to the Contractor, subject to maximum amounts and limitations specified in the University's Manual for Comprehensive Travel Policies and Procedures, as they may be from time-to-time amended.

E. The parties agree that the following shall be essential terms and conditions of this Agreement:

1. The Contractor warrants that no part of the total contract amount provided herein shall be paid, directly or indirectly, to any officer or employee of the State of Tennessee as wages, compensation, or gifts in exchange for acting as officer, agent, employee, sub-contractor, or consultant to the contractor in connection with any work contemplated or performed relative to this agreement. If the contractor is an individual, the contractor warrants that within the past six (6) months he/she has not been and during the term of this contract will not become an employee of the State of Tennessee.
2. The parties agree to comply with Title VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Executive Order 11,246 and the related regulations of each. Each party assures that it

will not discriminate against any individual including, but not limited to, employees or applicants for employment and/or students, because of race, religion, creed, color, sex, age, disability, veteran status or national origin.

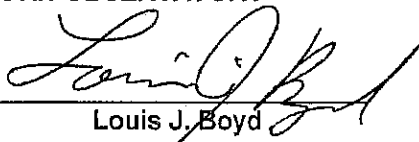
The parties also agree to take affirmative action to ensure that applicants are employed and that employees are treated during their employment without regard to their race, religion, creed, color, sex, disability, veteran status or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection available to employees and applicants for employment.

3. The contractor, being an independent contractor and not an employee of this institution, agrees to carry adequate public liability and other appropriate forms of insurance, to pay all taxes incidental hereunto, and otherwise protect and hold the institution harmless from any and all liability not specifically provided for in this agreement.
  4. The effective date and term of the Agreement shall be from 10/1/05 to 9/30/08.
  5. This Agreement may be terminated by either party by giving written notice to other, at least 10 days before the effective date of termination. In that event, the Contractor shall be entitled to receive just and equitable compensation for any satisfactory authorized work completed as of the termination date.
  6. If the Contractor fails to fulfill in timely and proper manner his obligations under this Agreement, or if the Contractor shall violate any of the terms of this Agreement, the University shall have the right to immediately terminate this Agreement and withhold payment in excess of fair compensation for work completed.
- Notwithstanding the above, the Contractor shall not be relieved of liability to the University for damages sustained by virtue of any breach of this Agreement by the Contractor.
7. This Agreement may be modified only by written amendment executed by all parties hereto.
  8. The Contractor shall maintain documentation for all charges against the University under this Agreement. The books, records, and documents of the Contractor, insofar as they relate to work performed or money received under this Agreement, shall be maintained for a period of three (3) full years from the date of the final payment, and shall be subject to audit, at any reasonable time and upon reasonable notice, by the University or the State Comptroller of the Treasury or their duly authorized representatives.
  9. The Contractor shall not assign this Agreement or enter into sub-contracts for any of the work described herein without obtaining the prior written approval of the University.
  10. The Contractor shall submit to the University **quarterly** progress reports.
  11. This Agreement requires multiple fiscal year funding and as such, is subject to the allotment of Federal and State funds.
  12. A copy of the Charter of the **Corporation** may be required and presented when requested prior to approval of the Agreement, and where a corporate officer other than the President has signed this Agreement, proof of signatory authority may be required prior to approval.
  13. The Contractor agrees that no work shall commence until this Agreement is fully executed by both parties and that a minority ethnicity report is completed and returned with this Agreement.

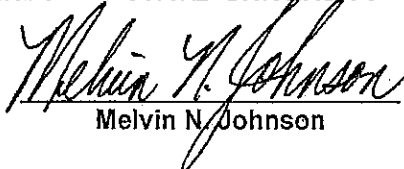
14. Michael Busby is the University's Coordinator for this Agreement and can be reached at tel: (615) 277-1600, fax: (615) 277-1614 or email: busby@coe.tsuniv.edu.
15. Louis J. Boyd is the Contractor's Coordinator for this Agreement and can be reached at tel: (520) 394-2928, fax: (520) 394-2928 or email: boyd@apt0.sao.arizona.edu.
16. This Agreement shall not be binding upon the parties until it is approved by the President or, when required, by the Chancellor, Tennessee Board of Regents, or his designee.

IN WITNESS WHEREOF, the parties have by their duly authorized representatives set forth their signatures:

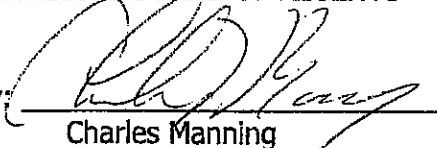
FAIRBORN OBSERVATORY

By:  DIRECTOR Aug 8, 2005  
(Louis J. Boyd) (Title) (Date)

TENNESSEE STATE UNIVERSITY

By:  President 9-8-05  
(Melvin N. Johnson) (Title) (Date)

TENNESSEE BOARD OF REGENTS

By:  Chancellor 9/28/05  
(Charles Manning) (Title) (Date)

**APPENDIX A**

**BUDGET**

**YEAR 1**

**Annual operating cost for Automatic Telescopes**

<u>Telescope</u>	<u>Type</u>	<u>Amount</u>
T3	APT	\$20,000
T4	APT	\$20,000
T8	APT	\$20,000
T9	AIT	\$25,000
T10	APT	\$20,000
T11	APT	\$20,000
T12	APT	\$20,000
T13	AST	\$50,000
	<b>TOTAL:</b>	<b>195,000</b>



# BUDGET

## YEAR 2

### Annual operating cost for Automatic Telescopes

<u>Telescope</u>	<u>Type</u>	<u>Amount</u>
T3	APT	\$20,000
T4	APT	\$20,000
T8	APT	\$20,000
T9	AIT	\$25,000
T10	APT	\$20,000
T11	APT	\$20,000
T12	APT	\$20,000
T13	AST	\$50,000
	TOTAL:	195,000

## BUDGET

### YEAR 3

#### Annual operating cost for Automatic Telescopes

<u>Telescope</u>	<u>Type</u>	<u>Amount</u>
T3	APT	\$20,000
T4	APT	\$20,000
T8	APT	\$20,000
T9	AIT	\$25,000
T10	APT	\$20,000
T11	APT	\$20,000
T12	APT	\$20,000
T13	AST	\$50,000
	TOTAL:	195,000